

# STANDARDS OF APPRENTICESHIP adopted by

#### **TEKNON CORPORATION APPRENTICESHIP COMMITTEE**

(sponsor)

Skilled Occupational Objective(s):

DOT

Term

**DATA/VOICE CABLING TECHNICIAN - INSTALLER** 

823.261-030

**4000 HOURS** 





# APPROVED BY Washington State Apprenticeship and Training Council REGISTERED WITH

## **Apprenticeship Section of Specialty Compliance Services Division**

Washington State Department Labor and Industries
Post Office Box 44530
Olympia, Washington 98504-4530

APPROVAL
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	JUNE 30, 2003			
	Initial Approval		Committee Amended	
	Standards Amended (review)		Standards Amended (administrative)	
By:	LAFRANK NEWELL	Bv:	PATRICK WOODS	
_ ,.	Chair of Council	_ ,.	Secretary of Council	

The Washington State Apprenticeship and Training Council (WSATC) has the authority to develop, administer, and enforce apprenticeship program standards (Standards) for the operation and success of an apprenticeship and training program in the State of Washington. Apprenticeship programs and committees function, administer, or relinquish authority only with the consent of the WSATC and only apprentices registered with the supervisor or recognized under the terms and conditions of a reciprocal agreement will be recognized by the WSATC. Parties signatory to these Standards declare their purpose and policy is to establish and sponsor an organized system of registered apprenticeship training and education.

These Standards are in conformity and are to be used in conjunction with the Apprenticeship Rules, Chapter 296-05 WAC (Washington Administrative Code); Apprenticeship Act, Chapter 49.04 RCW (Revised Code of Washington); The National Apprenticeship Act, 29 U.S.C. (United States Code) 50; Apprenticeship Programs, Title 29 Part 29 CFR (Code of Federal Regulations); and Equal Employment Opportunity in Apprenticeship and Training, Title 29 Part 30 CFR which govern employment and training in apprenticeable occupations. They are part of this apprenticeship agreement and bind all signers to compliance with all provisions of registered apprenticeship. Additional information may need to be maintained by the program that is supplemental to these apprenticeship standards. This information is for purposes of ensuring compliance with decisions of the WSATC and the apprenticeship laws identified above.

If approved by the council, such amendment/s and such changes as adopted by the council shall be binding to all parties. Sponsors shall notify apprentices of changes as they are adopted by the council. If and when any part of these Standards becomes illegal, as pertains to federal and/or state law, that part and that part alone will become inoperative and null and void, and the Department of Labor and Industries (L&I) may adopt language that will conform to applicable law. The remainder of the Standards will remain in full force and effect.

See WAC 296-05-003 for the definitions necessary for use with these Standards.

#### I. <u>GEOGRAPHIC AREA COVERED</u>:

The sponsor has no authority to conduct training outside of the geographical area covered by these Standards. The sponsor may enter into an agreement (portability agreements – see WAC 296-05-303(3)) with other apprenticeship committees for the use of apprentices by training agents that are working outside their approved geographic area. Also, if a reciprocity agreement (see WAC 296-05-327) is in place, the out-of-state sponsor may use their registered apprentices. The sponsor will ensure compliance with the provisions of any agreement recognized by the WSATC.

The area covered by these Standards shall be Washington State

#### II. MINIMUM QUALIFICATIONS:

Minimum qualifications must be clearly stated and applied in a nondiscriminatory manner (see WAC 296-05-316).

Age: 18 years of age minimum

Education: **High School diploma or GED** 

Physical: Must be able to perform physical requirements of the occupation

Testing: None

Other: Must be an employee of Teknon Corporation

# III. CONDUCT OF PROGRAM UNDER WASHINGTON EQUAL EMPLOYMENT OPPORTUNITY PLAN:

Sponsors with five (5) or more apprentices must adopt an Equal Employment Opportunity (EEO) Plan and Selection Procedures (see Part D of Chapter 296-05 WAC and 29 CFR Part 30).

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, sex, color, religion, national origin, age, disability or as otherwise specified by law. The sponsor shall take positive action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required by the rules of the Washington State Apprenticeship and Training Council and Title 29, Part 30 of the Code of Federal Regulations. (WAC 296-05-316(3))

#### A. Selection Procedures:

#### **Application to program:**

1. When a vacancy occurs, a bid announcement will be included in all employee's weekly paycheck and posted at the office. The bid will be open for at least five (5) working days. The apprenticeship committee will evaluate bids received.

#### **Testing and background:**

2. Arrangements will be made for applicants to take the CASAS test through South Seattle College. Applicant must attain a passing score of 220 in writing and math for consideration in an apprenticeship position. The cost of the test will be at Teknon's expense.

3. After an applicant has been offered an apprenticeship position, they must complete a drug/alcohol test at Teknon's expense. Acceptance is subject to successful test results.

#### **Selection process:**

- 4. The apprenticeship committee shall offer the apprenticeship position to the senior employee applicant who meets all of the above requirements.
- 5. Applicants with previous experience shall supply the apprenticeship committee all records that will substantiate advanced standing under this program. The amount of credit granted, for previous work experience shall be determined by the apprenticeship committee after careful review of the merits of each individual case.

#### B. Equal Employment Opportunity Plan:

- 1. Disseminate information by brochure, letters, and other appropriate means to minority and woman organizations. Speak to organization upon invitation whose purpose is to present opportunities to minorities and women.
- 2. The following statement will be included in advertisements and announcements for entry-level positions: "Teknon Corporation is an Equal Employment Employer. Minorities and women are encouraged to apply. Entry level positions can lead to apprenticeship opportunities."
- 3. The apprenticeship committee may offer the position to a minority or woman other than the senior applicant from the ranked list in order to achieve EEO requirements.
- 4. Grant advance standing or credit on the basis of previously acquired experience

#### Discrimination Complaints.

Any apprentice or applicant for apprenticeship who believes they have been discriminated against may file a complaint (WAC 296-05, Part D).

#### IV. TERM of APPRENTICESHIP:

The minimum term of apprenticeship must not be less than 2000 hours or 12 months of work experience in each occupation identified in these Standards as apprenticeable. The term of apprenticeship must be stated in hours or months of employment.

The term of apprenticeship shall not be less than 4000 hours of reasonably continuous employment in the approved schedule of work processes

#### V. INITIAL PROBATIONARY PERIOD:

All apprentices are subject to an initial probationary period, stated in hours or months of employment for which they receive full credit toward completion of apprenticeship. Advance credit/standing will not reduce the initial probationary period. The initial probationary period:

- Is the period following the apprentice's acceptance into the program and during which the apprentice's appeal rights are impaired. The initial probation must not exceed twenty percent (20%) of the term of apprenticeship unless an exemption by the WSATC has been granted for longer probationary periods as specified by Civil Service or law.
- Is the period that the WSATC or the supervisor of apprenticeship may terminate an apprenticeship agreement at the written request by any affected party. The sponsor or the apprentice of the apprenticeship agreement may terminate the agreement without a hearing or stated cause. An appeal process is available to apprentices who have completed the initial probationary period.

The first 800 hours of employment shall be the initial probationary period

#### VI. RATIO OFAPPRENTICES TO JOURNEY LEVEL WORKERS:

Supervision is the necessary education, assistance, and control provided by a journey-level employee that is on the same job site at least seventy-five percent of each working day, unless otherwise approved by the WSATC. The sponsor will assure that apprentices are under the supervision of competent and qualified journey-level workers on the job who are responsible for the work being performed, to ensure safety and training in all phases of the work. Apprentices will work the same hours as journey-level workers, EXCEPT where such hours may interfere with related/supplemental instruction. (see WAC 296-05-316(5))

Teknon Corporation shall be permitted to employ apprentices at the ratio of not less than one (1) apprentice to every one (1) journeyperson in the workforce

#### VII. APPRENTICE WAGES and WAGE PROGRESSION:

The apprentice will be paid a progressively increasing schedule of wages based on specified percentages of journey-level wage consistent with skills acquired. These may be indicated in hours or monthly periods set by the sponsor. The entry wage will not be less than the minimum wage prescribed by the Fair Labor Standards Act, where applicable, unless a higher wage is required by other applicable federal law, state law, respective regulations, or by collective bargaining agreement.

The sponsor may accelerate, by an evaluation process, the advancement of apprentices who demonstrate abilities and mastery of the occupation to the level for which they are qualified. When the apprentice is granted advanced standing the sponsor must notify the employer/training agent of the appropriate wage per the wage progression schedule specified in these Standards.

Step	Number of hours/months	Percentage of journey-level rate
1	0000 – 1000 hours	55%
2	1000 – 2000 hours	66%
3	2000 – 3000 hours	77%
4	3000 – 4000 hours	88%

#### VIII. WORK PROCESSES:

The apprentice shall receive on the job instruction and experience as is necessary to become a qualified journey-level worker versed in the theory and practice of the occupation covered by these Standards. The following is a condensed schedule of work experience, which every apprentice shall follow as closely as conditions will permit.

Employers/training agents shall only use registered apprentices to perform the work processes as stated in this section. (WAC 296-05-003 - Definitions)

#### A. <u>Data/Voice Cabling Technician - Installer</u>

**Approximate Hours** 

1000 hours

Period 1:

- 1. Installation of Cable
  - Pull horizontal (copper media)
    - In conduit
    - In open ceiling
  - Pull backbone (copper media)
    - Bottom up or top down
    - Along path parallel to floor and ceiling
  - Pull optical cable
    - In innerduct
- 2. Installation of Work Area Outlets
  - Wall
  - Floor
  - Power pole/modular furniture
- 3. Installation of Connectors
  - Assemble and install
    - 8-pin modular connectors
    - coaxial connectors
  - Demonstrate connector color codes
- 4. Pre-termination
  - Organize, form, dress cables
  - Determine length/slack
  - Label cables
- 5. Firestopping
  - Core firewall
  - Install sleeves
  - Pull cable
  - Install firestop material

#### 6. Safety

• Demonstrate common safety practice

#### Period 2: 1000 hours

- 1. Installation of Cable Support Systems
  - Cable trays
  - Ladder racks
  - J-hooks
  - Bridle/D-rings
- 2. Termination
  - Complete IDC terminations
    - Cross-connect blocks
    - Patch panels
- 3. Testing
  - Use tone test set, volt-ohm meter
  - Diagnose open, shorted, crossed, and split pairs
  - Recognize active circuits
- 4. Retrofits
  - Remove abandoned cables
- 5. Standards/Codes
  - Demonstrate knowledge of ANSI/TIA/EIA-568B, 569A, 606, 607, and appropriate sections of National Electric Code

Period 3: 1000 hours

- 1. Build closets
  - Mount/install backboards
  - Mount/install cross-connects
  - Mount/install racks/patch panels
  - Install optical fiber panels/hardware
- 2. Install Grounding Infrastructure
  - Know applicable local electric codes
  - Know applicable sections of National Electric Code
  - Install grounding backbones and busbars
  - Perform grounding tests
- 3. Connectors
  - Assemble and install
    - Crimp connectors

- Optical fiber ST, SC connectors
- Demonstrate connector color codes
- 4. Testing
  - Copper cable Category 5e certification using handheld testers
  - Optical fiber single/multimode using lightsource/power meter
- 5. Troubleshooting
  - Diagnose and correct
    - Copper cable problems
- 6. Retrofits
  - Identify active circuits
  - Implement cutover

*Period 4:* <u>1000 hours</u>

- 1. Splicing
  - Copper cable splicing
  - Optical fiber splicing (mechanical, fusion)
- 2. Perform Site Surveys
  - Use construction plans and specifications
- 3. Administrative Tasks
  - Document test results
  - Document as-builts
  - Complete daily reports
  - Order/inventory materials

Total Hours: 4000

#### IX. RELATED/SUPPLEMENTAL INSTRUCTION:

The apprentice must attend related/supplemental instruction. Time spent in related/supplemental instruction will not be considered as hours of work, and the apprentice is not to be paid for time so spent, unless otherwise stated in these Standards.

The sponsor/training agent must provide for instruction of the apprentice during the related/supplemental instruction in safe and healthful work practices in compliance with the Washington Industrial Safety and Health Act, and applicable federal and state regulations.

In case of failure on the part of any apprentice to fulfill this obligation, the sponsor has authority to take disciplinary action (see Administrative/Disciplinary Procedures section).

Clock hours of actual attendance by the apprentice in related/supplemental instruction classes at the community/technical college or other approved training locations shall be reported to L&I on a quarterly basis for verifying attendance and industrial insurance purposes.

For industrial insurance purposes, the WSATC will be considered as the employer should any apprentice, <u>not being paid to attend</u>, sustain an injury while participating in related/supplemental classroom activity, or other directly related activity outside the classroom. The activities must be at the direction of the instructor.

The methods of related/supplemental training must consist of one or more of the following:

- ( ) Supervised field trips
- (X) Approved training seminars
- (X) A combination of home study and approved correspondence courses
- (X) State Community/Technical college
- ( ) Private Technical/Vocational college
- ( ) Training trust
- (X) Other (specify)

**BICSI Installer I and II training classes** 

**144** Minimum RSI hours per year, (see WAC 296-05-305(5))

#### Additional Information:

- A. After being accepted into the apprenticeship program and prior to being dispatched to their first job assignment, all apprentices shall attend a minimum four (4) hours safety and trade orientation course, unless prior work experience exceeds 1000 hours with approval by the JATC.
- B. Each apprentice must maintain a grade point average of 75% (C) or better to qualify for advancement.
- C. An apprentice who is late for any RSI classes will be required to make up the class hour/s in a manner acceptable to the committee. Excessive absenteeism will be cause for disciplinary action up to suspension or cancellation from the program. Fifteen (15) minutes late to the class will constitute absenteeism.
- D. Apprentices who come to class under the influence of drugs and/or alcohol will be immediately dismissed from class and subject to discipline action up to suspension or cancellation.
- E. Apprentices who are physically or verbally abusive to the instructor or other apprentices will be immediately dismissed from class and subject to discipline action up to suspension or cancellation.

#### X. <u>ADMINISTRATIVE/DISCIPLINARY PROCEDURES:</u>

Sponsors may include in this section requirements and expectations of the apprentices and training agents and an explanation of disciplinary actions that may be imposed for noncompliance. The sponsor has the following disciplinary procedures that they may impose: Disciplinary Probation, Suspension, or Cancellation.

<u>Disciplinary Probation</u>: A time assessed when the apprentice's progress is not satisfactory. During this time the program sponsor may withhold periodic wage advancements, suspend or cancel the apprenticeship agreement, or take further disciplinary action. A disciplinary probation may only be assessed after the initial probation is completed. During the disciplinary probation, the apprentice has the right to file an appeal of the committee's action with the WSATC (as described in WAC 296-05-009).

<u>Suspension</u>: A suspension is a temporary interruption in progress of an individuals apprenticeship program that may result in the cancellation of the Apprenticeship Agreement. Could include temporarily not being allowed to work, go to school or take part in any activity related to the Apprenticeship Program until such time as the Apprenticeship Committee takes further action.

<u>Cancellation</u>: Refers to the termination of an apprenticeship agreement at the request of the apprentice, supervisor, or sponsor. (as described in WAC 296-05-009).

#### A. General Procedures

- 1. Each apprentice will be required to purchase the recommended tools at the time indicated by the coordinator. (see attached addendum A)
- 2. Any apprentice leaving the jurisdiction of the WSATC to work in this trade without receiving a Leave of Absence from the JATC will be subject to disciplinary action up to suspension or cancellation.
- 3. Apprentices must be on time at the assigned place of work and required related supplemental instruction. All absences must be excused. RSI classes that are missed must be made up. Violation of these requirements may result in disciplinary action up to suspension or cancellation.
- 4. Apprentices will submit a completed "Apprentice Work Progress Record" to the office by the 5th of the month for the previous month. If apprentice fails to submit these by the deadline, the apprentice's next wage increase may be held for one month.
- 5. Apprentices may be moved from jobsite to jobsite in order to round out their work experience as required by the standards.

#### B. Local Apprenticeship Committee Policies

#### None

#### C. Complaint and Appeal Procedures:

All approved programs must establish procedures explaining the program's complaint review process. Complaints that involve matters covered by a collective bargaining agreement are not subject to the complaint review procedures in this section.

Complaint (after initial probation completed) – WAC 296-05-009 and 296-05-316(21)

Prior to: 20 days of intention of disciplinary action by a committee/organization

- Committee/organization must notify the apprentice <u>in writing</u> of action to be taken
- Must specify the reason(s) for discipline, suspension, or cancellation
- Decision will become effective immediately
- Written reason(s) for such action will be sent to the apprentice

Within: 30 days request for reconsideration from the committee

• Apprentice to request local committee to reconsider their action

Within: 30 days of apprentice's request for reconsideration

 Local committee/organization must provide written notification of their final decision

#### If apprentice chooses to pursue the complaint further:

Within: 30 days of final action

- Apprentice must submit the complaint <u>in writing</u> to the supervisor (L&I)
- Must describe the controversy and provide any backup information
- Apprentice must also provide this information to the local committee/organization

Within: 30 days for supervisor to complete investigation

• If no settlement is agreed upon during investigation, then supervisor must issue a <u>written</u> decision resolving the controversy when the investigation is concluded

If the apprentice or local committee/organization disputes supervisor decision:

Within: 30 days of supervisor's decision, request for WSATC hearing

- Request must be in writing
- Must specify reasons supporting the request
- Request and supporting documents must be given to all parties
- WSATC must conduct the hearing in conjunction with the regular quarterly meeting

Within: 30 days after hearing

• WSATC to issue written decision

#### XI. <u>COMMITTEE – RESPONSIBLITIES AND COMPOSITION</u>

NOTE: The following is an overview of the requirements associated with administering an apprenticeship committee and/or program. These provisions are to be used with the corresponding RCW and/or WAC.

The sponsor is the policymaking and administrative body responsible for the operation and success of this apprenticeship program. A committee is responsible for the day-to-day operations of the apprenticeship program and they must be knowledgeable in the

process of apprenticeship and/or the application of Chapter 49.04 RCW and Chapter 296-05 WAC. Sponsors must develop procedures for:

- A. Committee Operations (WAC 296-05-316): (Not applicable for Plant Programs) Convene meetings at least three times per year of the program sponsor and apprenticeship committee attended by a quorum of committee members as defined in the approved Standards. If the committee does not indicate its definition of quorum, the interpretation will be "50% plus 1" of the approved committee members. Conference call meetings may be conducted in lieu of regular meetings but must not exceed the number of attended meetings and no disciplinary action can be taken during conference call meetings.
- B. Program Operations (Chapter 296-05 WAC Part C & D):
  - 1. The sponsor will record and maintain records pertaining to the local administration of the apprenticeship program and make them available to the WSATC or its representative on request.

Records required by WAC 296-05-400 through 455 (see Part D of Chapter 296-05 WAC) will be maintained for five (5) years; all other records will be maintained for three (3) years.

2. The sponsor will submit to L&I through the assigned state apprenticeship coordinator the following list:

Forms are available on line at <a href="http://www.LNI.wa.gov/scs/apprenticeship">http://www.LNI.wa.gov/scs/apprenticeship</a> or from your assigned apprenticeship coordinator.

- Apprenticeship Agreement Card within first 30 days of employment
- Authorization of Signature as necessary
- Authorized Training Agent Agreements (committee approving or canceling) – within 30 days
- Apprenticeship Committee Meeting Minutes within 30 days of meeting (not required for Plant program)
- Change of Status within 30 days of action by committee, with copy of minutes
- Journey Level Wage at least annually, or whenever changed
- Revision of Standards and/or Committee Composition as necessary
- RSI (Quarterly) Reports:

1st quarter: January through March, by April 10

2nd quarter: April through June, by July 10

3rd quarter: July through September, by October 10 4th quarter: October through December, by January 10

3. Adopt, as necessary, local program rules or policies to administer the apprenticeship program in compliance with these Standards that must be submitted for L&I approval and updating these Standards. The L&I

apprenticeship program manager may administratively approve requests for revisions in the following areas of the Standards:

Program name

• Section III: Conduct of Program Under Washington Equal Employment

Opportunity Plan

• Section VII: Apprentice Wages and Wage Progression

• Section IX: Related/Supplemental Instruction

• Section XI: Committee - Responsibilities and Composition (including

opening statements)

• Section XII: Subcommittees

Section XIII: Training Director/Coordinator

#### C. Management of Apprentices:

1. Each apprentice (and, if under 18 years of age, the parent or guardian) will sign an apprenticeship agreement with the sponsor, who will then register the agreement, with L&I before the apprentice attends the related/supplemental instruction classes, or within the first 30 days of employment as an apprentice. For the purposes of industrial insurance coverage and prevailing wage exemption under RCW 39.12.021, the effective date of registration will be the date the agreement is received by L&I.

L&I must be notified within 30 days of program approval, of all requests for disposition or modification of agreements, with a copy of the committee minutes approving the changes, which may be:

- Certificate of completion
- Additional credit
- Suspension (i.e. military service or other)
- Reinstatement
- Cancellation and/or
- Corrections
- 2. Rotate apprentices in the various processes of the skilled occupation to ensure the apprentice is trained to be a competent journey-level worker.
- 3. Periodically review and evaluate apprentices before advancement to the apprentice's next wage progression period. The evidence of such advancement will be the record of the apprentice's progress on the job and during related/supplemental instruction.
- 4. The sponsor has the obligation and responsibility to provide, insofar as possible, continuous employment for all apprentices in the program. The sponsor may arrange to transfer an apprentice from one training agent to another, or to another sponsor when the sponsor is unable to provide reasonably continuous employment, or they are unable to provide apprentices the diversity of experience necessary for training and experience in the various work processes as stated in

these Standards. The new sponsor or training agent will assume all the terms and conditions of these Standards. If, for any reason, a layoff of an apprentice occurs, the apprenticeship agreement will remain in effect unless canceled by the sponsor.

- 5. An apprentice who is unable to perform the on-the-job portion of apprenticeship training may, if the apprentice so requests and the sponsor approves, participate in related/supplemental instruction, subject to the apprentice obtaining and providing to the sponsor written requested document/s for such participation. However, time spent will not be applied toward the on-the-job portion of apprenticeship training.
- 6. Hear and adjust all complaints of violations of apprenticeship agreements.
- 7. Upon successful completion of apprenticeship, as provided in these Standards, and passing the examination that the sponsor may require, the sponsor will recommend that the WSATC award a Certificate of Completion of Apprenticeship. The program will make an official presentation to the apprentice that has successfully completed his/her term of apprenticeship.

#### D. Training Agent Management:

- 1. Offer training opportunities on an equal basis to all employers and apprentices. Grant equal treatment and opportunity for all apprentices through reasonable working and training conditions and apply those conditions to all apprentices uniformly. Provide training at a cost equivalent to that incurred by currently participating employers and apprentices. Not require an employer to sign a collective bargaining agreement as a condition of participation.
- 2. Determine the adequacy of an employer to furnish proper on-the-job training in accordance with the provisions of these Standards. Require all employers requesting approved training agent status to complete an approved training agent agreement and comply with all federal and state apprenticeship laws and the appropriate apprenticeship Standards.
- 3. Submit approved training agent agreements to the department with a copy of the agreement and/or the list of approved training agents within thirty days of committee approval. Submit rescinded approved training agent agreements and/or the list of approved training agents to the department within thirty days of said action.

#### E. Composition of Committee: (see WAC 296-05-313)

Apprenticeship committees must be composed of an equal number of management and non-management representatives composed of at least four members but no more than twelve. If the committee does not indicate its definition of a quorum, the interpretation will be "50% plus 1" of the approved committee members.

Apprenticeship committees shall elect a chairperson and a secretary who shall be from opposite interest groups, i.e., chairperson-employers; secretary-employees, or vice versa; EXCEPT, this does not apply where the Registration Agency represents the apprentice(s).

For plant programs the WSATC or the department designee will act as the employee representative.

Quorum: 50% plus 1 of the approved committee members

Program type administered by the committee: Individual Joint

The employer representatives shall be:

Steve Munter, Chairman

15443 NE 95th ST

Redmond WA 98052

Neal Strobaugh

15443 NE 95th ST

Redmond WA 98052

Redmond WA 98052

The employee representatives shall be:

Mike Gill, Secretary
15443 NE 95th ST
Redmond WA 98052
James Arnold
15443 NE 95th ST
Redmond WA 98052

#### XII. SUBCOMMITTEE:

Subcommittee(s) approved by L&I, represented equally from management and non-management, may also be established under these Standards, and are subject to the main committee. All actions of the subcommittee must be approved by the main committee.

None

#### XIII. TRAINING DIRECTOR/COORDINATOR:

The sponsor may employ a person(s) as a full or part-time training coordinator(s)/training director(s). This person(s) will assume responsibilities and authority for the operation of the program as are delegated by the sponsor.

None

## ADDENDUM A – TOOL LIST

Tool	Sample Part Number
Electrician's Snips	2100-7
8" Crescent Wrench	
10" Crescent Wrench	
Assortment Slotted Screwdrivers	35-173 35-178 35-180
Assortment Phillips Screwdrivers	35-193 35-194 35-196
Punch Tool with 110/66 Blades	10055-000 10176-000
Sheet Rock Saw	
Hacksaw	35-260
Hammer	35-210
Diagonal Cutters	36-009
Long-nose Pliers	35-036
Flashlight, Heavy Duty	
Toner/Wand Set	701K
Tool Pouch	35-533
Cable Preparation Tool	45-777
Coaxial Crimp Tool w/ "F" & BNC Connector	33-302
Dies	
50 Foot Fish Tape	31-082
Wire Map Tester	52254
Volt-ohm Meter	61-360
Cordless Drill	
Nutdriver Set	35-299
3/8" and ½" Socket Set (standard)	
Paddle Bit Set (1/4"-1")	
Drill Bit Set (3/16"-1/2")	